

EOC Algebra 1 Exam
Blueprint Summary Table with Supporting Sample Items

Category	% of Questions	SD Standard	Bloom's Level
Transform Algebraic Expressions	15%	9-12.A.1.1.	Comprehension
Sample Item: What is the value of $(4x)^2 + 3$ when $x = 3$? A. 39 B. 147 C. 153 D. 225			
Solve Equations & Inequalities	20%	9-12.A.2.1 9-12.A.2.2	Comprehension Application
Sample Item: Solve for x. $-7 = 4 - (-x + 3)$ A. -10 B. -8 C. 8 D. 10			
Mathematical Models	15% (some integrated with Number Sense or S & P)	9-12.A.3.1 9-12.A.3.2	Application Comprehension
Sample Item: What is the slope of the line graph? <div style="text-align: right; margin-right: 100px;">y</div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 100px;"> <div style="width: 40%;"> A. $\frac{2}{1}$ B. $\frac{1}{2}$ C. $-\frac{1}{2}$ D. $-\frac{2}{1}$ </div> <div style="width: 50%; text-align: right;">x</div> </div>			

Properties & Behaviors of Relations, Functions, and Inverses	15% (some integrated with Number Sense)	9-12.A.4.1.	Application
Sample Item: What is the equation of the line containing the point $(-7, 4)$ and having a slope of zero ? A. $y = -4$ B. $x = 7$ C. $y = 4$ D. $x = -7$			
Apply measurement concepts	2% (integrated with other standards)	9-12.M.1.2.	Comprehension
Measurement concepts are integrated into the algebra items			
Characteristics of the real number system	5% (some integrated with Alg standards)	9-12.N.1.1 9-12.N.1.2	Comprehension Comprehension
Sample Item: Find two real numbers between $\frac{2}{7}$ and $\frac{8}{9}$. * Could be multiple choice or a constructed response item			
Operations with real numbers	13 % (some integrated with Alg standards)	9-12.N.2.1	Comprehension
Sample Item: What would be true of the product of x and y if x is positive and y is negative? A. xy is positive B. xy is negative C. xy = 0 D. Cannot be determined			
Problem Solving	2 %(integrated with Alg standards)	9-12.N.3.1. 9-12.N.3.2	Analysis Comprehension
Sample Item: Without a calculator, which expression shows the quickest way to add 220, 780, and 611? A. $220 + 611 + 780$ B. $(220 + 611) + 780$ C. $220 + (611 + 780)$ D. $(220 + 780) + 611$			

Data Analysis	15% (some integrated with Alg standards)	9-12.S.1.1 9-12.S.1.2. 9-12.S.1.3	Analysis Comprehension Analysis
Probability	5%	9-12.S.2.1 9-12.S.2.2	Knowledge Comprehension
Sample Item: A six-sided die is rolled 7 times. A 5 was rolled the first 4 times. The theoretical probability of rolling a 5 on the next roll is: <div style="margin-left: 100px;"> A. B. C. D. </div>			

Number of items should be between 45 and 60 items to adequately sample the range of knowledge and skills included in Algebra 1.

Distribution by Goal:

Algebra	60%
Measurement	2% (integrated with other standards)
Number Sense	20% (some integrated with Alg standards)
Statistics & Probability	20% (some integrated with Alg standards)